

DEECA requirements for permanent fencing around conservation areas under the Melbourne Strategic Assessment: Nature conservation management category (Version 1, July 2023)



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The installation of permanent boundary fencing is an interface requirement for conservation areas and must be delivered to the satisfaction of the Department of Energy, Environment and Climate Action (DEECA).

Background

The *Biodiversity Conservation Strategy for Melbourne's Growth Corridors* (BCS) identifies 36 conservation areas that must be protected and managed for conservation purposes in perpetuity. The BCS assigns each conservation area with a management category of 'growling grass frog (GGF)' or 'nature' conservation.

Conservation areas are located in Melbourne's growth areas and are being established progressively as new urban precincts are created. Coordinated and consistent requirements for the planning and establishment of conservation areas is necessary to ensure consistency in function, management, visual character, and amenity.

The provision of permanent boundary fencing is required for development to be generally in accordance with the Precinct Structure Plan applying to the land. Planning and delivery of permanent fencing in accordance with a fencing plan is a mandatory planning permit condition for any subdivision of land containing a conservation area.

This document sets out the permanent boundary fencing requirements for nature conservation area land. The purpose of this fencing is to clearly delineate the conservation area boundary, provide protection from unauthorised vehicular access, and support land management activities without compromising the movement of wildlife.

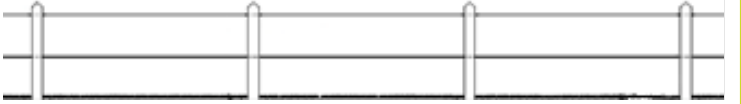
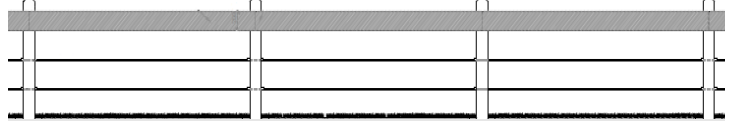
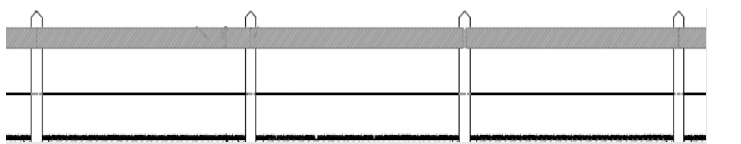
Due to the varying location and features of nature conservation areas, minor variations to the fencing requirements may be considered by DEECA. These will be considered on a case-by-case basis in consultation with the land manager and the relevant council. This document covers key fencing requirements and is not intended to be exhaustive. Nature conservation areas may be subject to additional requirements where necessary.

This document may be updated periodically to reflect current best practice in nature conservation area management and lessons learnt. Access to the most contemporary version is provided at <https://www.msa.vic.gov.au/conservation-actions/western-grassland-reserve/bcs-conservation-areas> (under 'Key documents').

Requirements

1. Fence styles and specifications

The fencing styles for nature conservation areas and the required detail drawings are listed below and provided in the Appendix. The fence style and associated post/rail material (selected from the options in the specifications) will be determined by DEECA, in consultation with the land manager and council.

| | |
|--|---|
| <p><u>Post and cable (two strand)</u> DEECA – MSA Nature Conservation Area Fencing Details, drawings L2.1 & L2.3.</p> |  |
| <p><u>Post, rail, and cable (two strand)</u> DEECA – MSA Nature Conservation Area Fencing Details, drawings L2.2 – L2.3.</p> |  |
| <p><u>Post, rail, and cable (single strand)</u> DEECA – MSA Nature Conservation Area Fencing Details, drawings L2.2 – L2.3 (the single strand details are provided as a notation on the drawing).</p> |  |

DEECA's detail drawings should be applied to nature conservation areas. The land manager or council may propose variations to these styles and specifications to accommodate site specific features or management needs.

DEECA will consider these proposals on a case-by-case basis, in consultation with the land manager and council. Any approved variations to these fence specifications must be recorded in a new detail drawing, the preparation of which will be coordinated by the requesting party and it must be reviewed and approved by DEECA prior to construction.

Where overhead power lines are present on site, the relevant energy company's standards for earthing must be considered and integrated into the fence design.

2. Secure and safely located access gates for land and emergency management activities

Nature conservation areas will require ongoing land and asset management, and access for emergency services. Fencing must provide secure access for management personnel to access these areas safely and easily with various management vehicles, trailers, and machinery. Forest Fire Management Victoria (FFMVic) will be responsible for fire management, prevention and suppression activities on certain nature conservation areas and access must meet its requirements.

An access gate location must ensure the following:

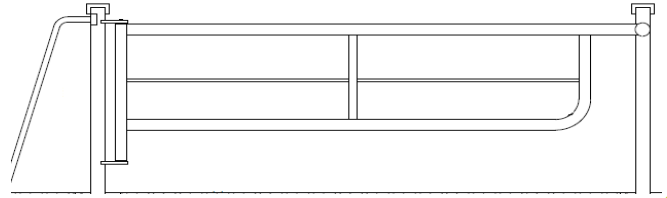
- safe access for management vehicles and machinery
- conservation area values are not negatively impacted
- easy access.

Specifications and number of access gates

Access gates must be heavy-duty style with a dual locking mechanism. The required detail drawings are identified below and provided in the Appendix.

Heavy-duty, dual locking access gate

**DEECA – MSA Nature Conservation Area
Access Gate Details, drawings L2.4.- L2.5.**



The width of all access gates must be a minimum of 4.12-metres clear horizontal open to accommodate management vehicles and machinery, and to be in accordance with FFMVic access requirements. The access location must also provide at least 4.2-metres of clear vertical space for emergency management vehicles (Figure 1).

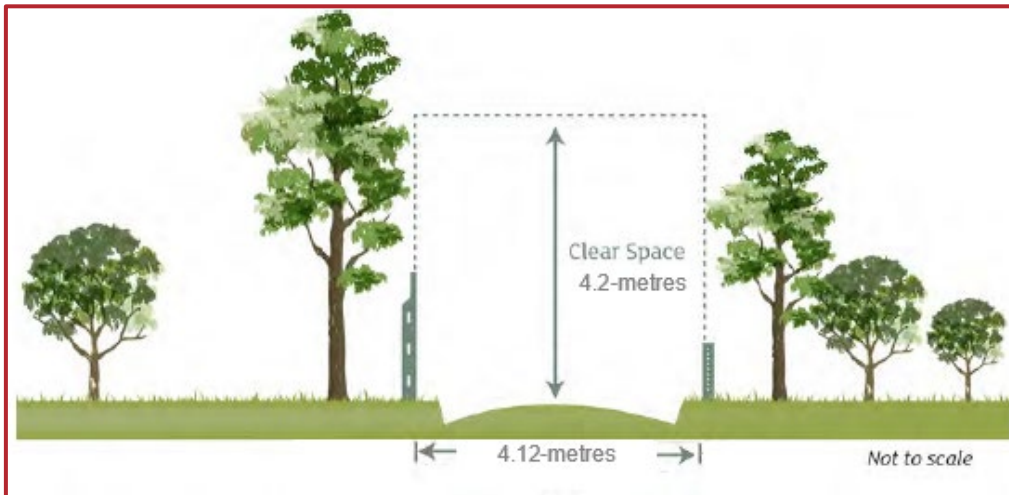


Figure 1: Clear horizontal and vertical space required at nature conservation area access gates
(Source: adapted from *CFA Access Requirements: Bushfire Management Overlay*, August 2014).

Consultation with DEECA and council is required to determine whether land and emergency management access requirements (i.e. the number and location of access points) are satisfied in a proposed fence plan.

Location along roads

The location of access gates along roads must consider the existing and planned road conditions, including traffic volume, speed, and existing/planned infrastructure (e.g. future upgrades/duplications, traffic lights, clearways, pedestrian crossings, intersections, and public transport stops) to ensure safe access.

Access gate locations must avoid:

- Being located on road corners or other locations that obscure the clear view of approaching traffic in either direction.
- Structures/features on the road reserve that may impede visibility, approach and/or access, such as light poles, signposts, above ground services, trees, etc.

Access gates should only be located along minor roads (i.e. access street level 1 and level 2, and connector street) where practical.

Safety provisions

The position of access gates located along roads must enable vehicles with trailers and machinery operators to safely do the following:

- leave the vehicle/machine to unlock and lock the gate, and
- exit and enter traffic on the road.

All access gate locations must demonstrate safe access for management vehicles and machinery to the satisfaction of the relevant authority responsible for road safety.

Ease of access

Access gate locations must provide easy access in accordance with the following:

- A heavy-duty vehicle crossover must be provided at all access gates along roads to enable vehicles and machinery to move safely between the conservation area and the road. The dimensions of the crossover must suit the width of the gate and not be narrower than 4.12-metres in width at any point. It must also smoothly transition to the natural ground surface level if it extends past the gate into the conservation area.
- Where an access point will require crossing of a shared path/pedestrian path, the relevant section of path must also be designed to withstand heavy vehicle use.
- Access gate locations must consider the topography of the conservation area (e.g. avoid directing passage on to a steep incline/decline or area that is not traversable due to rock) and avoid directing passage into sensitive areas (e.g. cultural heritage sites, tree protection zones, high biodiversity areas, wet areas).
- Access gates must provide access in all conditions, considering seasonal variation. For example, an area may be prone to having persistent soft ground during the wetter months, particularly if it is located at the bottom of a slope, making it unsuitable for an access location. Where unavoidable, suitable stabilisation works (subject to DEECA approval) may be required.
- The location of an access gate should allow for vehicles to enter from a relatively straight path of travel, rather than vehicles using turning movements to enter the access gate. This is particularly important for large heavy/rigid vehicles involved in management and fire and emergency activities.
- Access gates must open into the conservation area and must not be located where paths intersect. They must also not open across any path. Paths to be constructed in the conservation area that run parallel to an access gate, should be aligned at this point to avoid conflicting with the access gate when it is in an open position.

3. Boundary delineation and associated considerations

The permanent fence must be constructed on the conservation area boundary and will become the responsibility of the land manager. If a conservation area contains an asset managed by another public authority (e.g. a drainage asset including any maintenance access paths associated with the asset), any fencing required for that asset alone will be the responsibility of the relevant public authority with agreement of the land manager.

Placement

Nature conservation areas will be surrounded by an urban landscape with a variety of interfacing land uses. The placement of fencing needs to consider the surrounding landscape and the conservation area as a whole. An example of this is illustrated in Figure 2.

Fencing may not be required on boundaries:

- where there are existing natural or man-made features that clearly demarcate the conservation area boundary (e.g. garden beds, tree line, existing boundary fencing from adjoining land, etc.)
- that are adjacent to public open space or infrastructure (e.g. parkland, sporting fields, drainage, etc.).

The requirement for fencing on such boundaries will be determined by DEECA on a case-by-case basis, as fencing to prevent unauthorised vehicular access and delineate management boundaries may still be necessary. Different boundary treatments (e.g. a series of bollards) may be used to delineate boundaries between conservation area land and other public land or infrastructure where this boundary is not at risk from unauthorised vehicle access. Natural or sustainable materials should be utilised along such boundaries.

Installations on the road reserve (Figure 3) or other locations near the conservation area may influence the need for boundary fencing. If these provide an effective barrier to vehicles, boundary fencing may not be required. DEECA, the land manager, and council will determine the final outcome in these situations on a case-by-case basis.

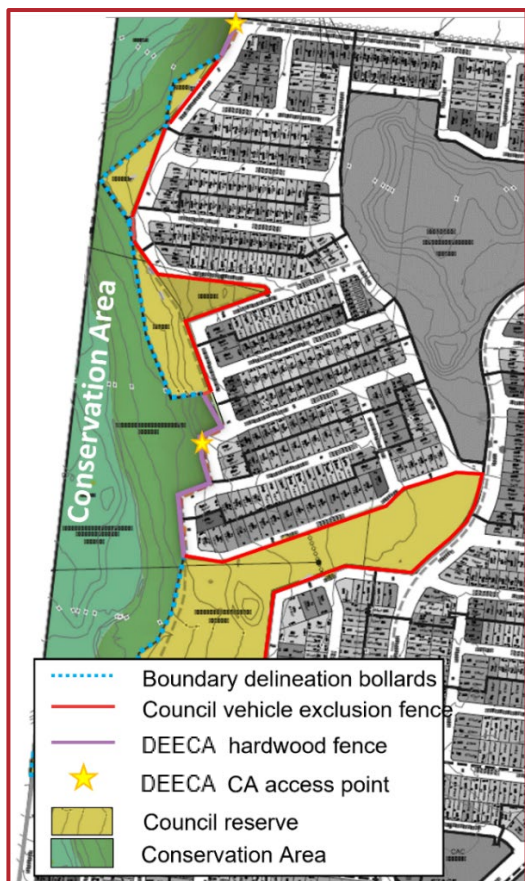


Figure 2: Example of different boundary treatments for road and public open space interfaces (Credit: Villawood Properties).

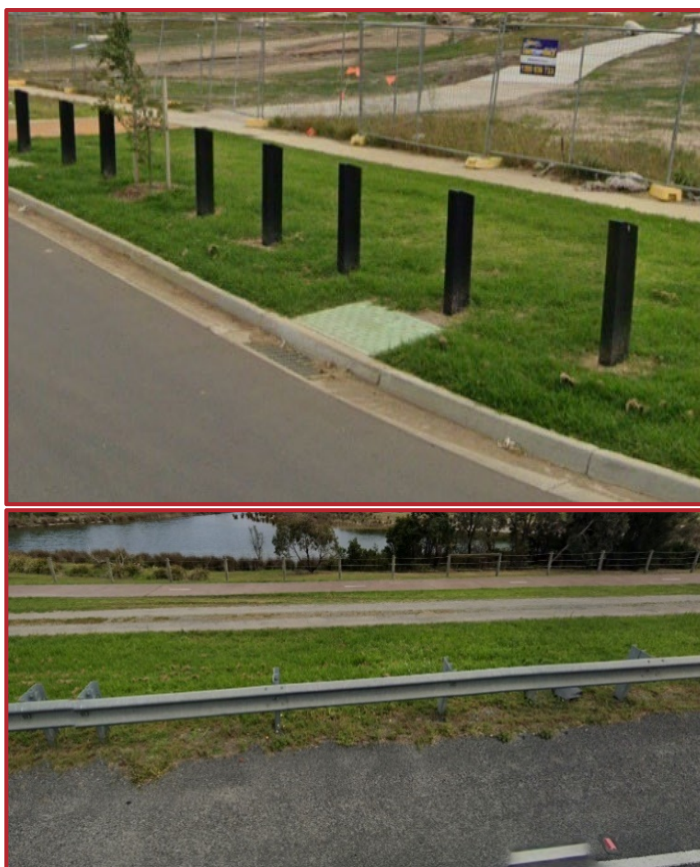


Figure 3: Examples of road reserve installations that may influence the need for boundary fencing if they are near the conservation area. A bollard streetscaping treatment (top), and a road barrier (bottom). (Source: Image capture © 2021 Google).

Wildlife friendly

Fencing around conservation areas must consider the movement of wildlife across the landscape. The fencing must not isolate wildlife populations by preventing their movement in or out of a conservation area. Fencing materials and designs must not create a risk of injury to wildlife.

4. Public access

The primary purpose of nature conservation areas is for conservation. However, where ecological values allow, conservation areas will be accessible to the public to encourage connection to and appreciation of the natural environment. Public access should be encouraged at designated entry/exit points that are linked to existing and planned paths (Figure 4) and in consideration of the urban design of the surrounding area.

Access openings in the fence must suit the width of the path it is connecting to. Generally, these are:

- 1.5-metres for pedestrian only paths
- 3-metres for shared paths.

Access to the conservation area overall must demonstrate compliance with the *Disability Discrimination Act 1992* to enable all abilities access, as well as facilitate pram and bicycle use.



Figure 4: Public access point linked to a pedestrian path
(Source: Image capture © 2021 Google).



Figure 5: A high visibility, dual locking bollard (Credit: Melbourne Water).

For access openings associated with shared paths, the installation of a high visibility, dual locking bollard (Figure 5) or similar, is required to prevent unauthorised vehicle access into the conservation area. The bollard must form part of the shared path asset and be included in the path construction.

For high-risk locations, public access points may need to include structures such as a pedestrian gate, corral, bollards, etc. (Figure 6) to deter inappropriate activity in the conservation area. This will need to be determined in consultation with DEECA, the land manager, and council.

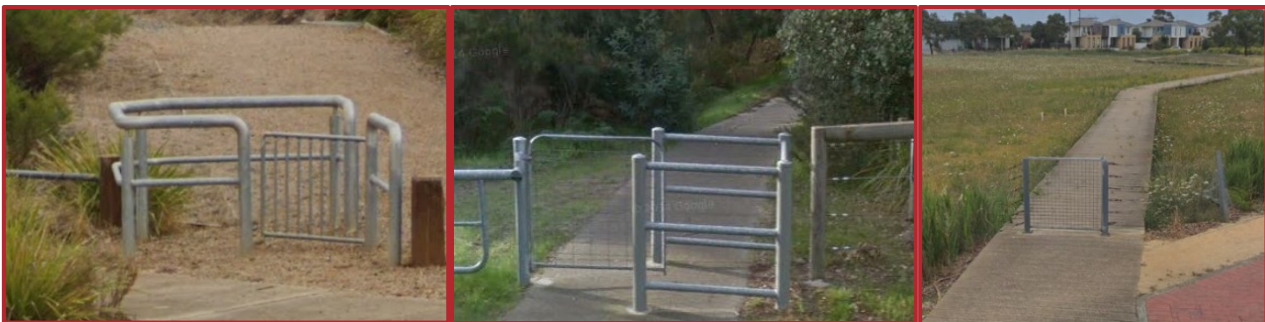


Figure 6: Examples of pedestrian corrals (left, middle) and a pedestrian gate (right). (Source: Image capture © 2021 Google).

Further information

For further information on the requirements for permanent fencing around nature conservation areas, please contact the MSA program at msa.bioconservation@delwp.vic.gov.au.

For further information on the MSA program, please visit the DEECA web page at <https://www.msa.vic.gov.au>.

We acknowledge Victorian Traditional Owners and their Elders past and present as the original custodians of Victoria's land and waters and commit to genuinely partnering with them and Victoria's Aboriginal community to progress their aspirations.



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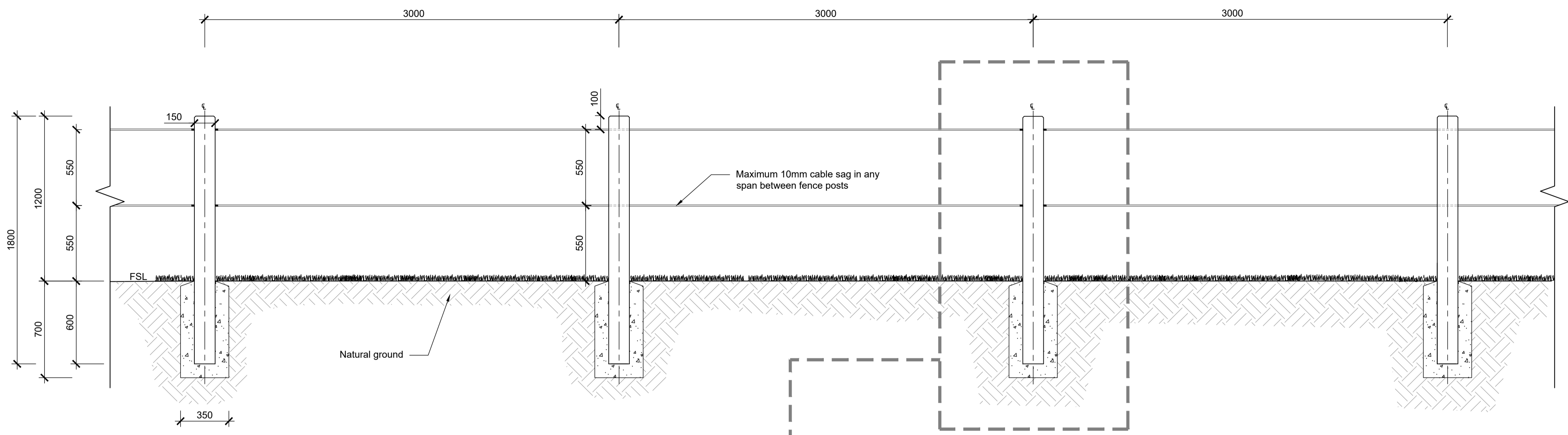
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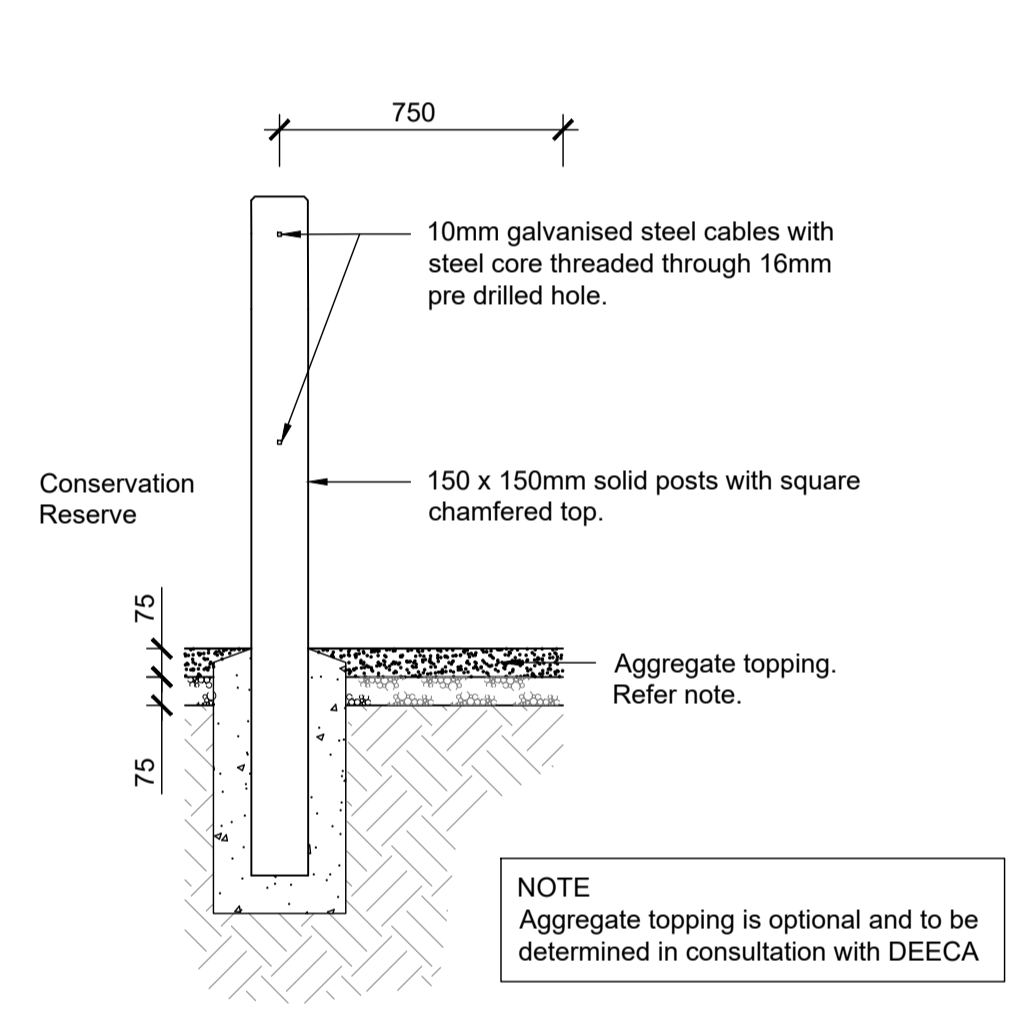
Appendix

DEECA – MSA Nature Conservation Area Fencing and Access Gate Details, drawings L2.1 - L2.5 (see next page).

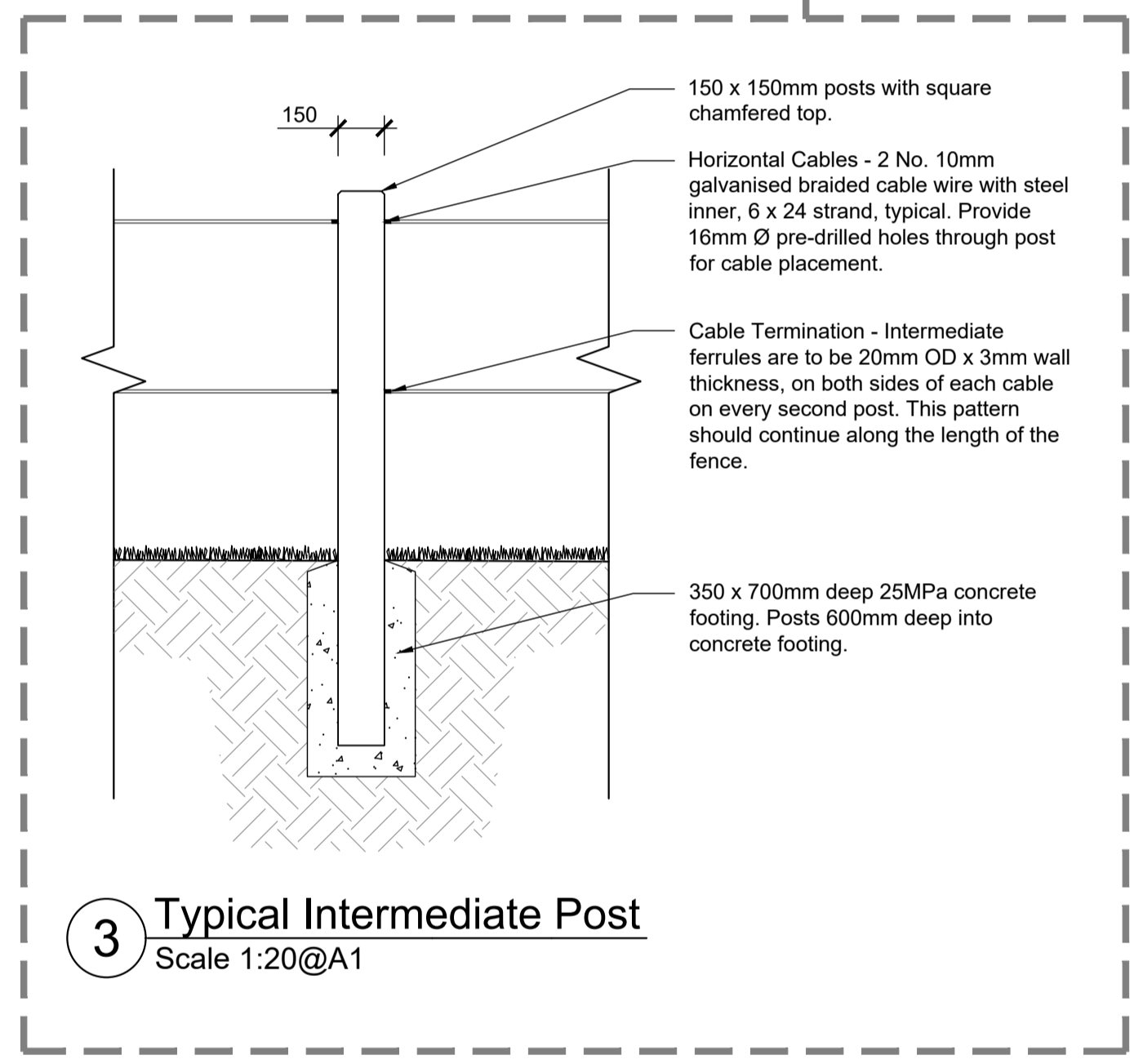
- Notes:**
1. Post Width
150 x 150mm
Approved Post Materials
Solid Wood Plastic Composite (WPC), charcoal or black colour
Hardwood - Dressed, seasoned hardwood timber post with natural durability. Minimum class 2.
Dressed Cypress Pine
Maximum Span Between Post Centres
WPC, Hardwood and Cypress Pine: 3m
WPC railing (end bays): 2.7m
 2. Approved Rail Materials (must match post material)
Solid Wood Plastic Composite (WPC) in charcoal or black colour.
Hardwood - Dressed, seasoned hardwood timber post with natural durability. Minimum class 2.
Dressed Cypress Pine.
 3. Hardwood or Cypress Pine Posts - Coat lower portion of ALL posts in contact with ground with Gripset Beta Bitumen Rubber or equivalent product.
 4. All metal fixtures must be galvanised unless otherwise specified.
 5. Maintenance vehicle and public access openings need to be considered in fence planning and confirmed with DEECA prior to construction.
 6. Fencing must be suitably earthed as per the relevant energy company's guidelines where required (e.g. where fence is located underneath/near overhead powerlines etc.).
 7. Tensioning end posts with suitable strainers to be installed at appropriate frequencies and/or change in fence direction.



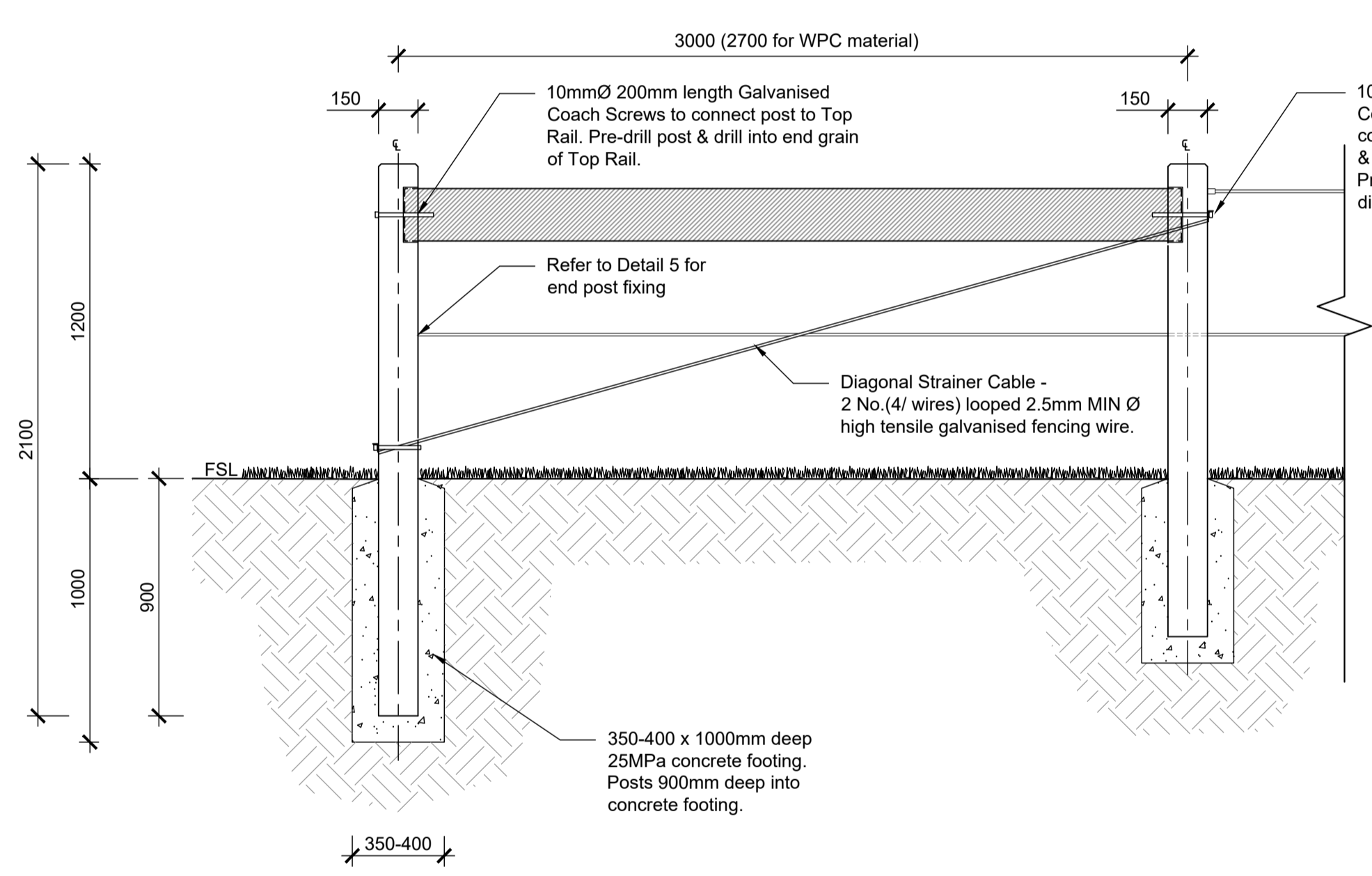
1 150mm Diameter Posts with Double Wires
Scale 1:20@A1



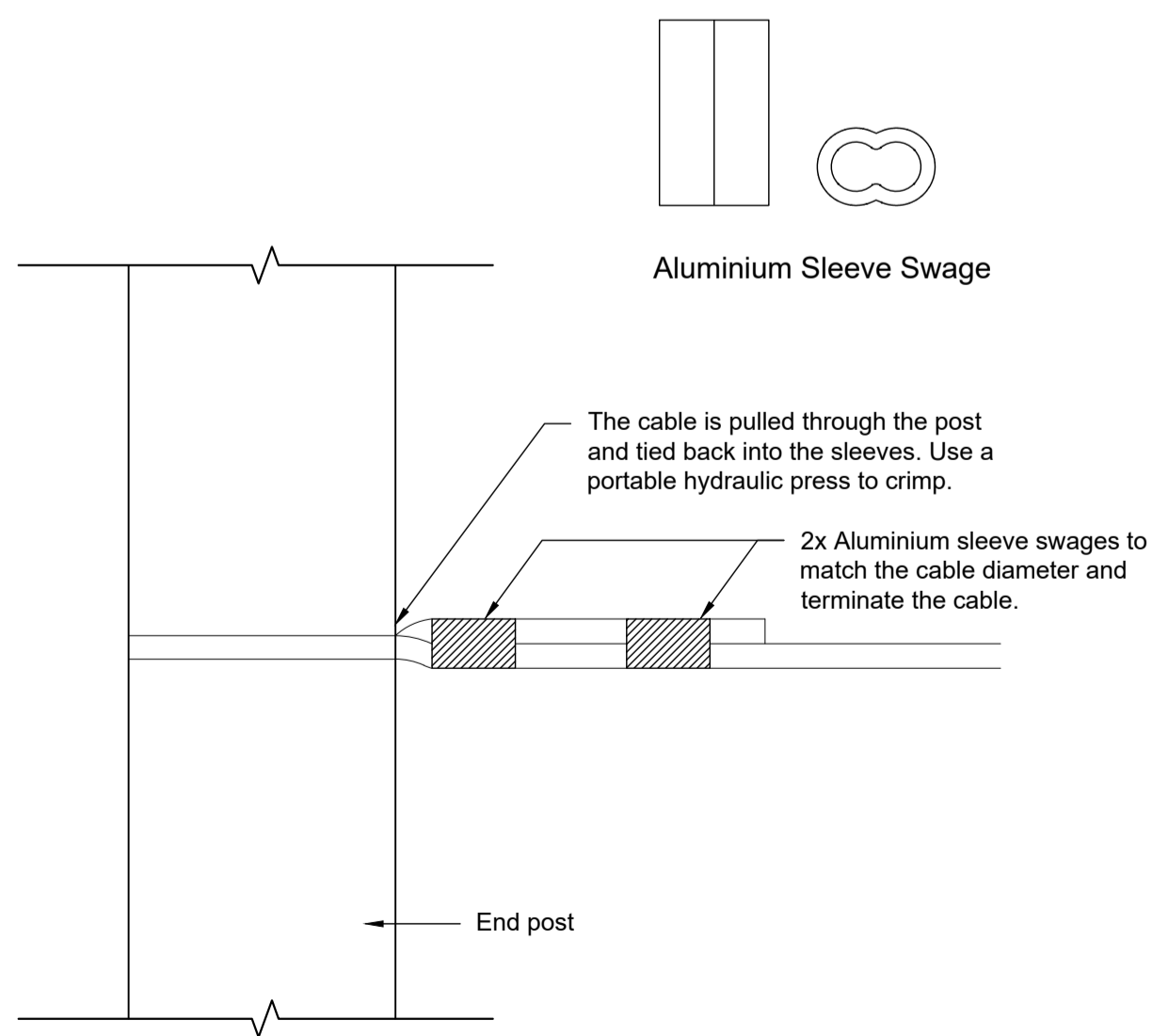
2 Side Elevation
Scale 1:20@A1



3 Typical Intermediate Post
Scale 1:20@A1



4 End Bay/Post Detail
Scale 1:20@A1



5 End Post Wire Termination Option 1
NTS



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- Amendments**
- Ⓐ 01.02.2023 Amendments made as per DEECA comments.
 - Ⓑ 23.03.2023 Amendments made as per DEECA comments.
 - Ⓒ 06.04.2023 Amendments made as per DEECA comments.

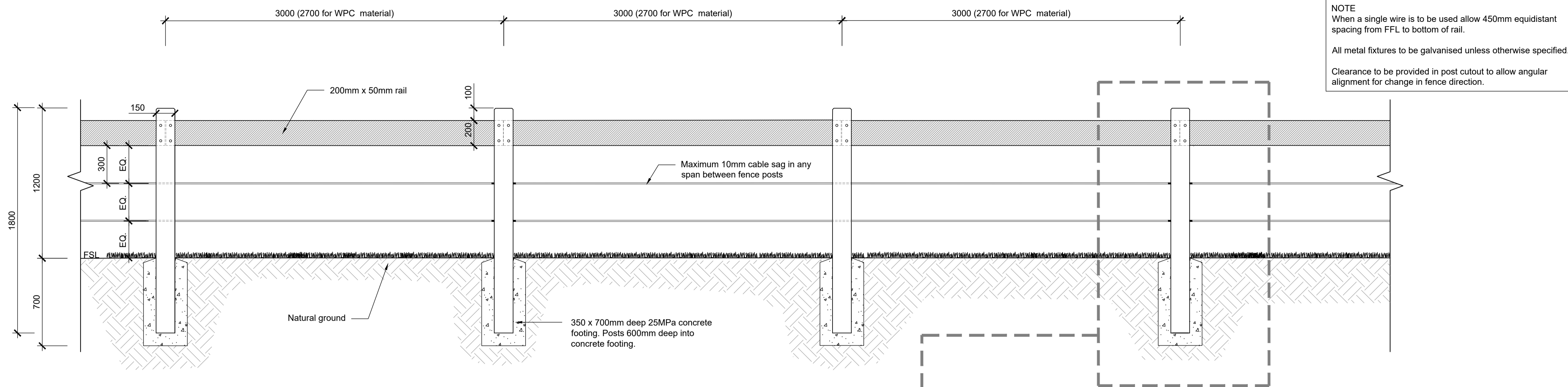
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Title

DEECA - MSA Nature Conservation Area

Construction Documentation
Fencing Details

Drawing Number

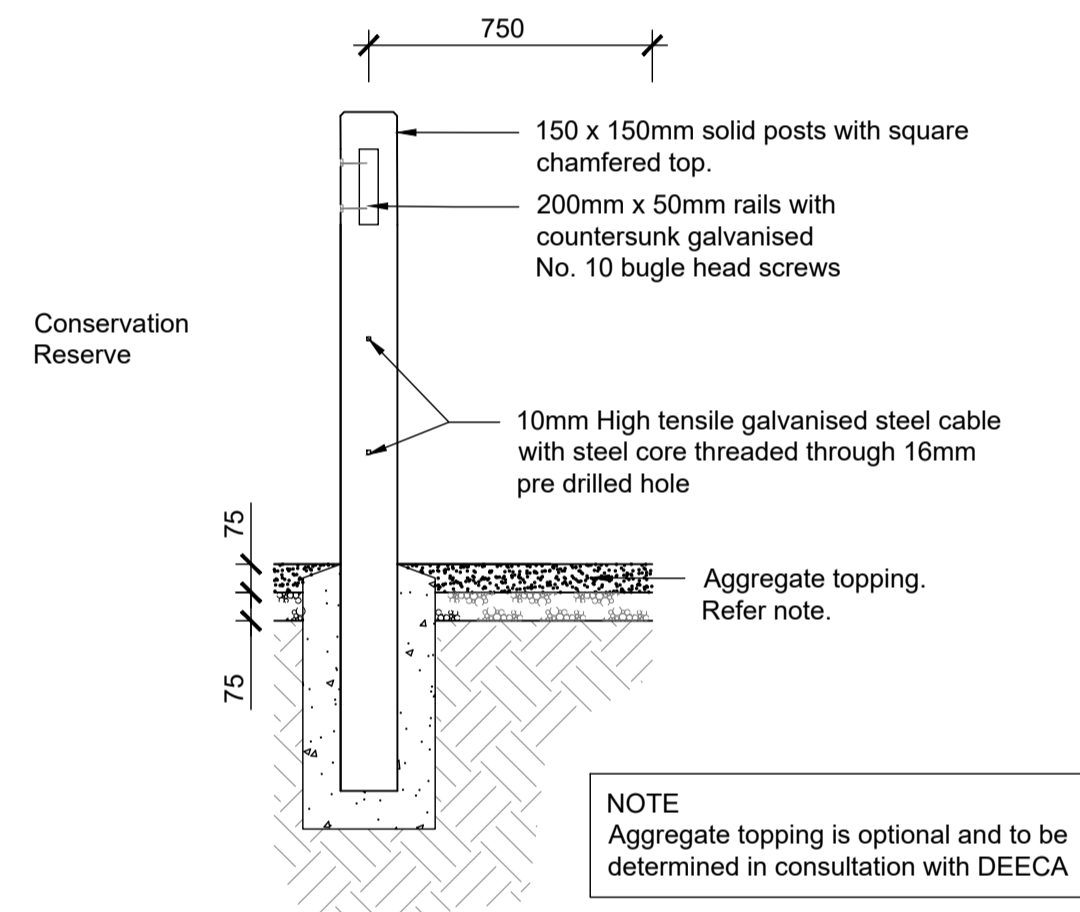
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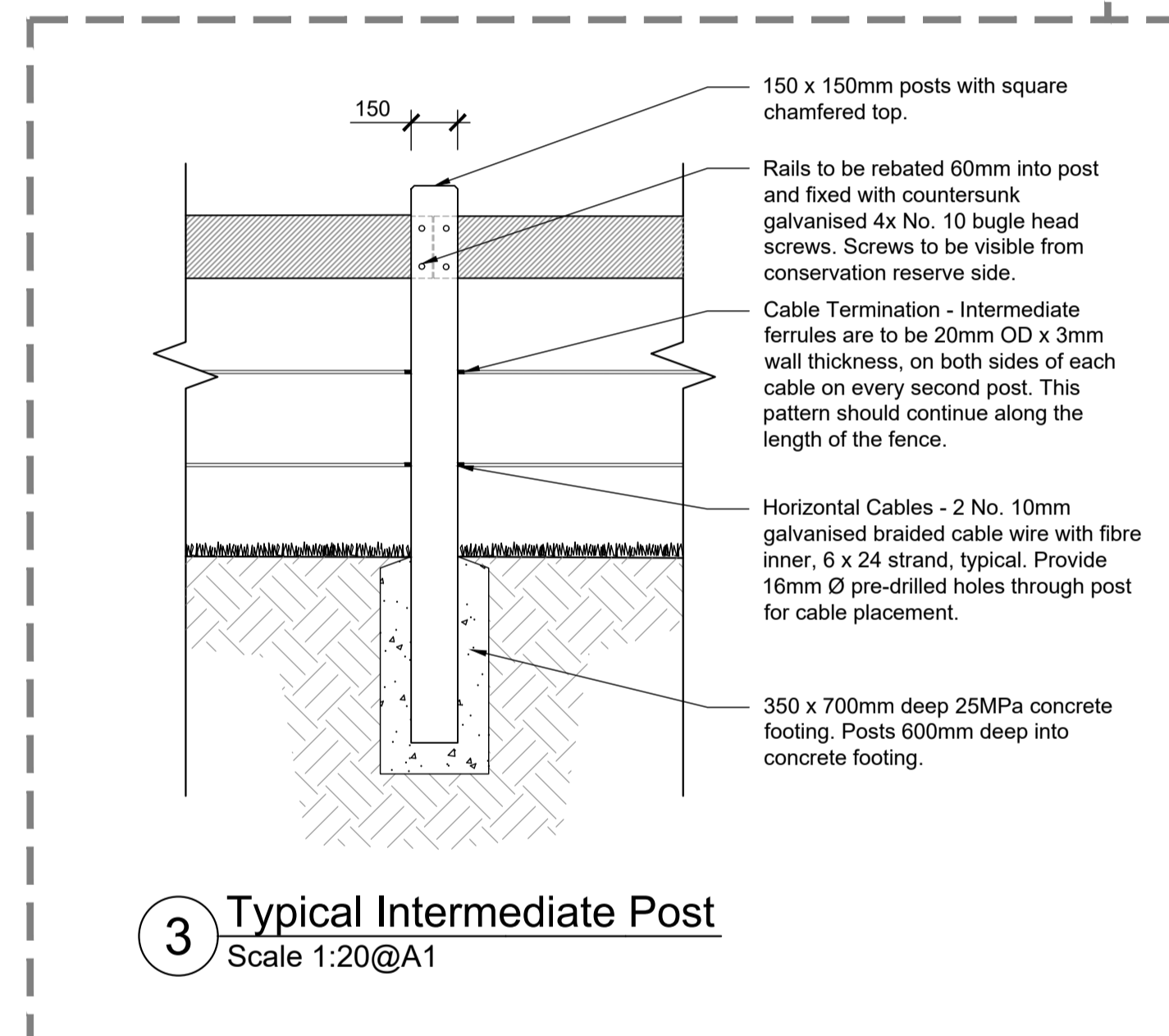
NOTE
When a single wire is to be used allow 450mm equidistant spacing from FFL to bottom of rail.
All metal fixtures to be galvanised unless otherwise specified.
Clearance to be provided in post cutout to allow angular alignment for change in fence direction.

- Notes:**
- Post Width**
150 x 150mm
Approved Post Materials
Solid Wood Plastic Composite (WPC) in charcoal or black colour.
Hardwood - Dressed, seasoned hardwood timber post with natural durability. Minimum class 2.
Dressed Cypress Pine
Maximum Span Between Post Centres
Hardwood and Cypress Pine: 3m
WPC: 2.7m
 - Approved Rail Materials (must match post material)**
Solid Wood Plastic Composite (WPC), charcoal or black colour
Hardwood - Dressed, seasoned hardwood timber post with natural durability. Minimum class 2.
Dressed Cypress Pine
 - Hardwood or Cypress Pine Posts - Coat lower portion of ALL posts in contact with ground with Gripset Beta Bitumen Rubber or equivalent product.
 - All metal fixtures must be galvanised unless otherwise specified.
 - Maintenance vehicle and public access openings need to be considered in fence planning and confirmed with DEECA prior to construction.
 - Fencing must be suitably earthed as per the relevant energy company's guidelines where required (e.g. where fence is located underneath/near overhead powerlines etc.).
 - Tensioning end posts with suitable strainers to be installed at appropriate frequencies and/or change in fence direction.

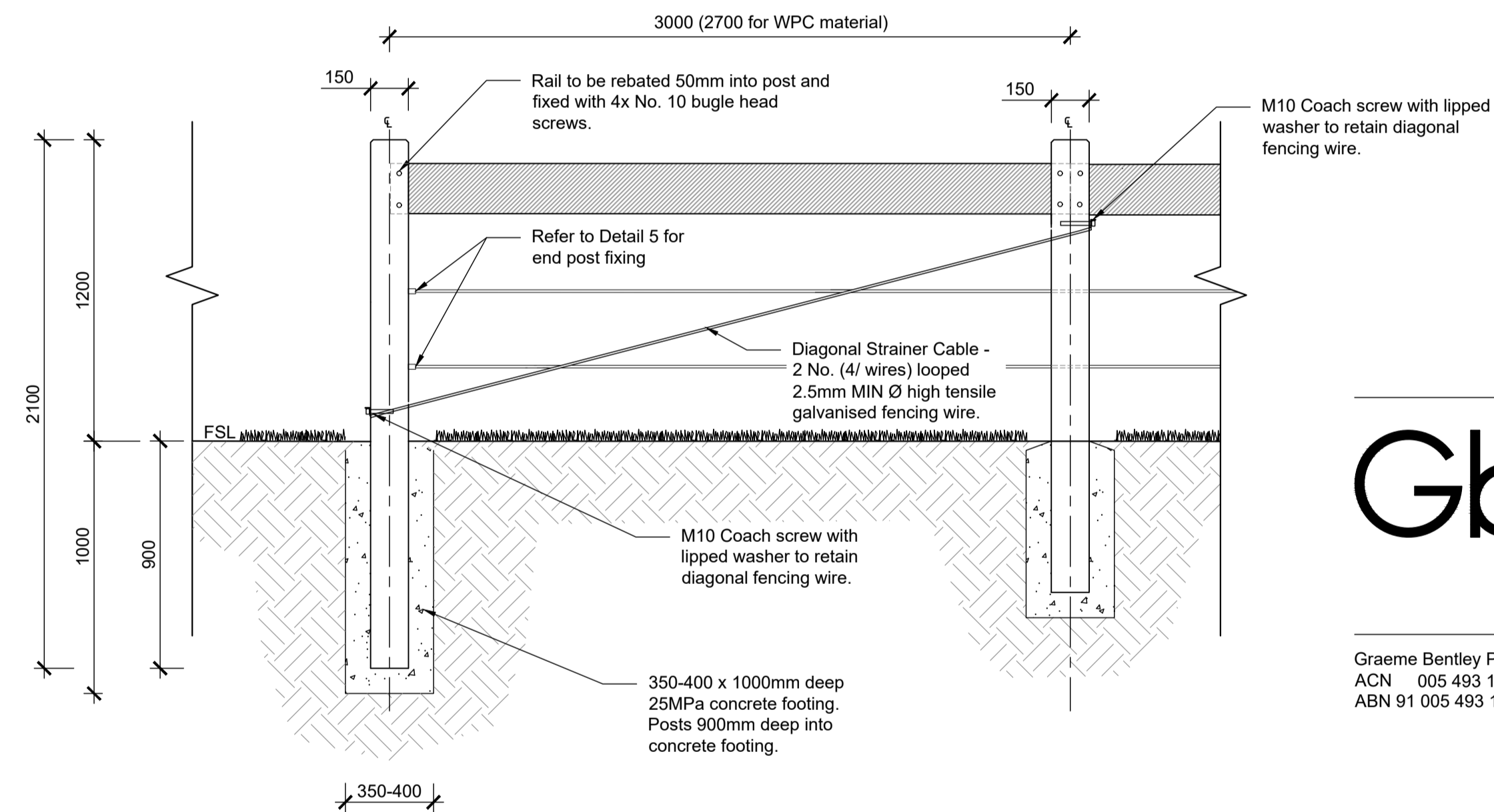
1 150mm Diameter Posts with Railing & Wires (Single or Double)
Scale 1:20@A1



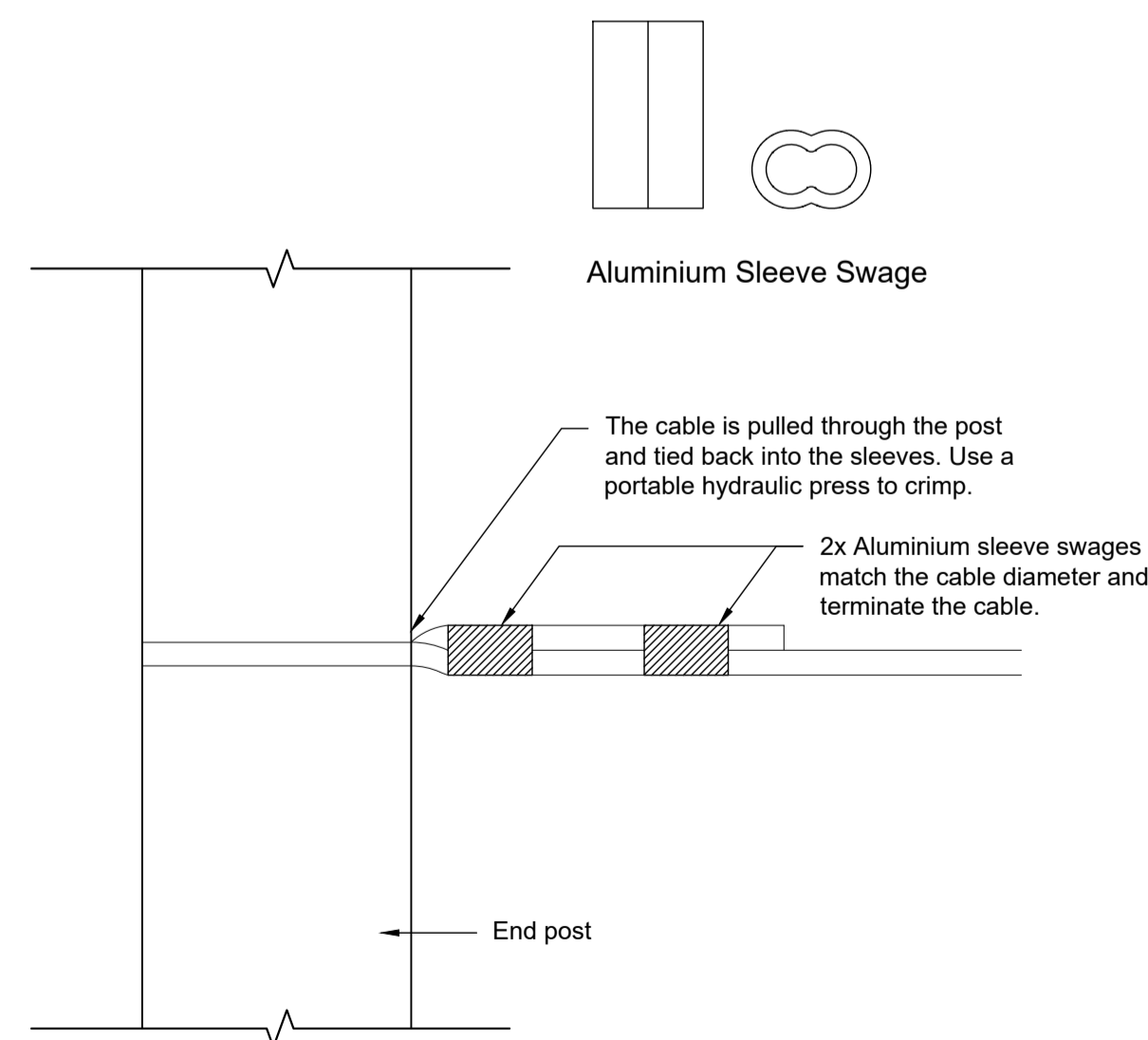
2 Side Elevation
Scale 1:20@A1



3 Typical Intermediate Post
Scale 1:20@A1



4 End Bay/ Post Detail
Scale 1:20@A1



5 End Post Wire Termination Option 1
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 - Ⓒ 06.04.2023 Amendments made as per DEECA comments.
 - Ⓓ 17.05.2023 Amendments made as per DEECA comments.

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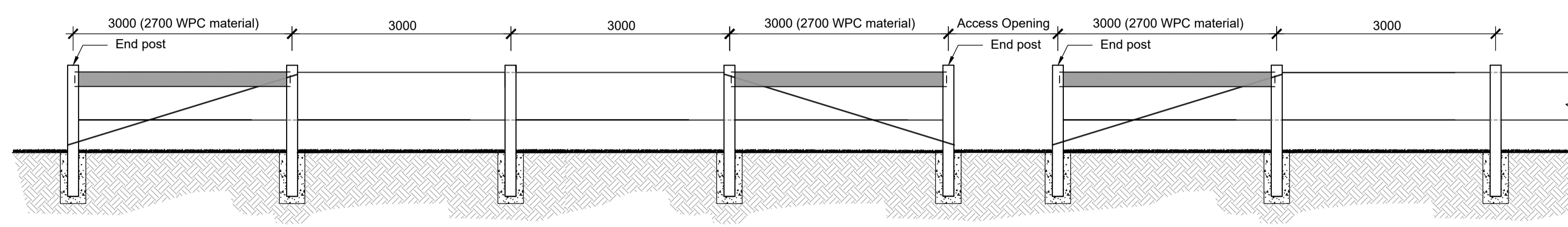
DEECA - MSA Nature Conservation Area

Construction Documentation
Fencing Details

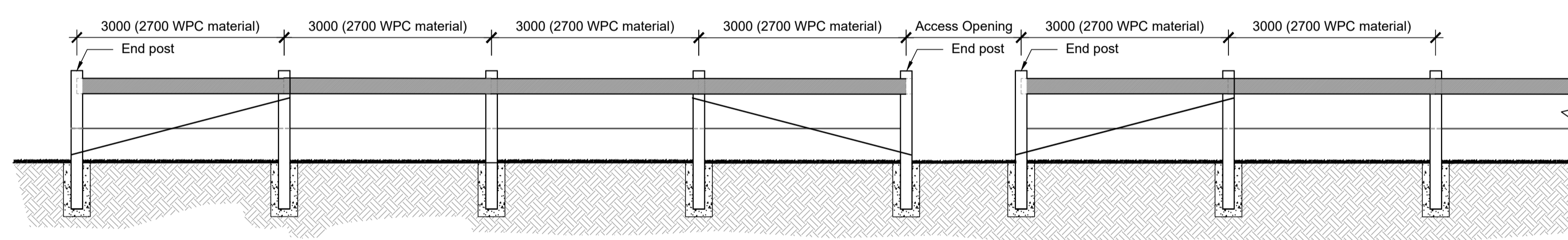
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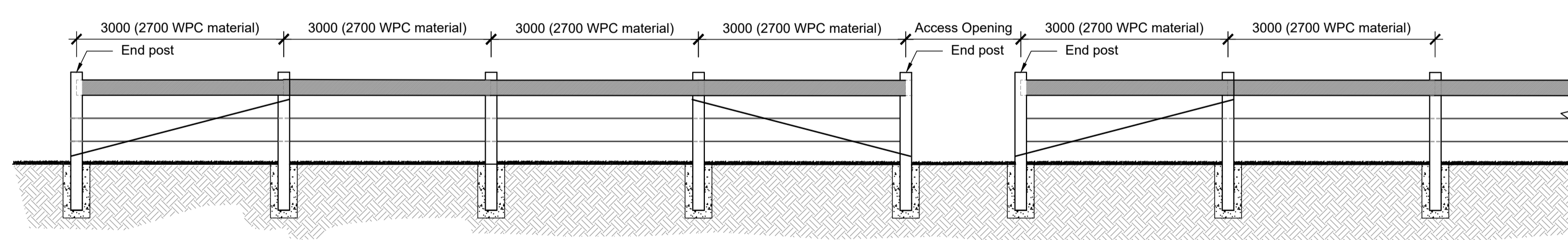
Notes:
 Access opening - purpose (public or maintenance vehicle), location, and width TBC during fence planning and approved by DEECA prior construction.



1 Fencing Post Layout - Double Wires
 Scale 1:50@A1



2 Fencing Post Layout - Railing & Wire (Single)
 Scale 1:50@A1



3 Fencing Post Layout - Railing & Wire (Double)
 Scale 1:50@A1

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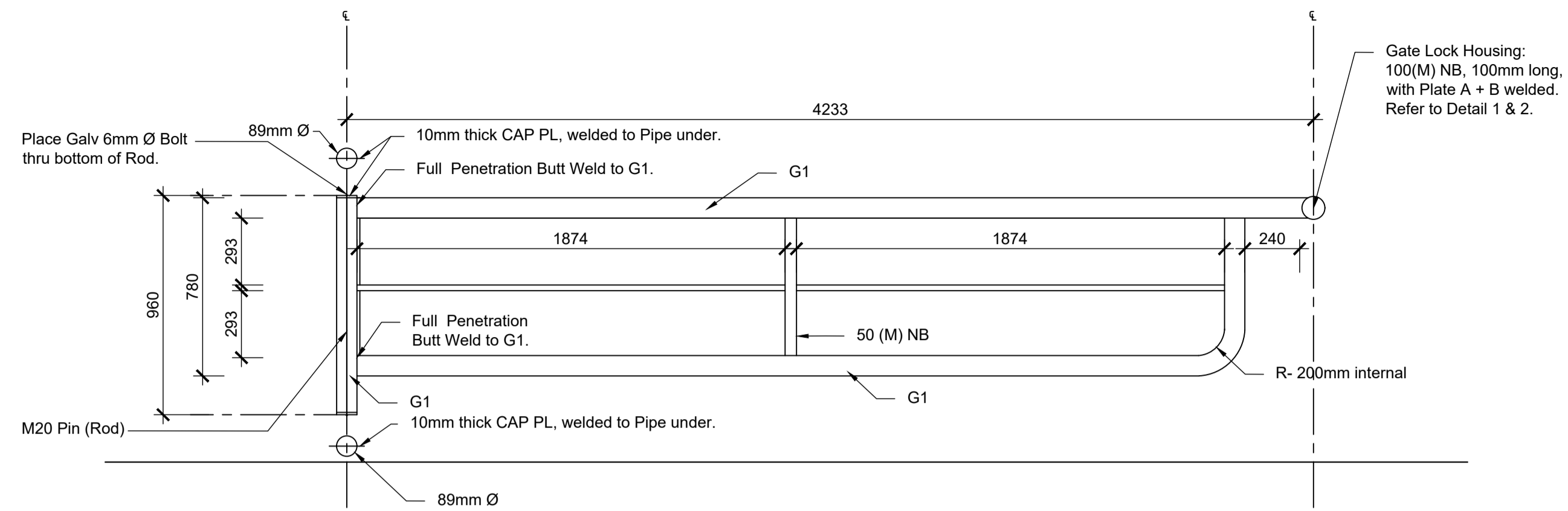
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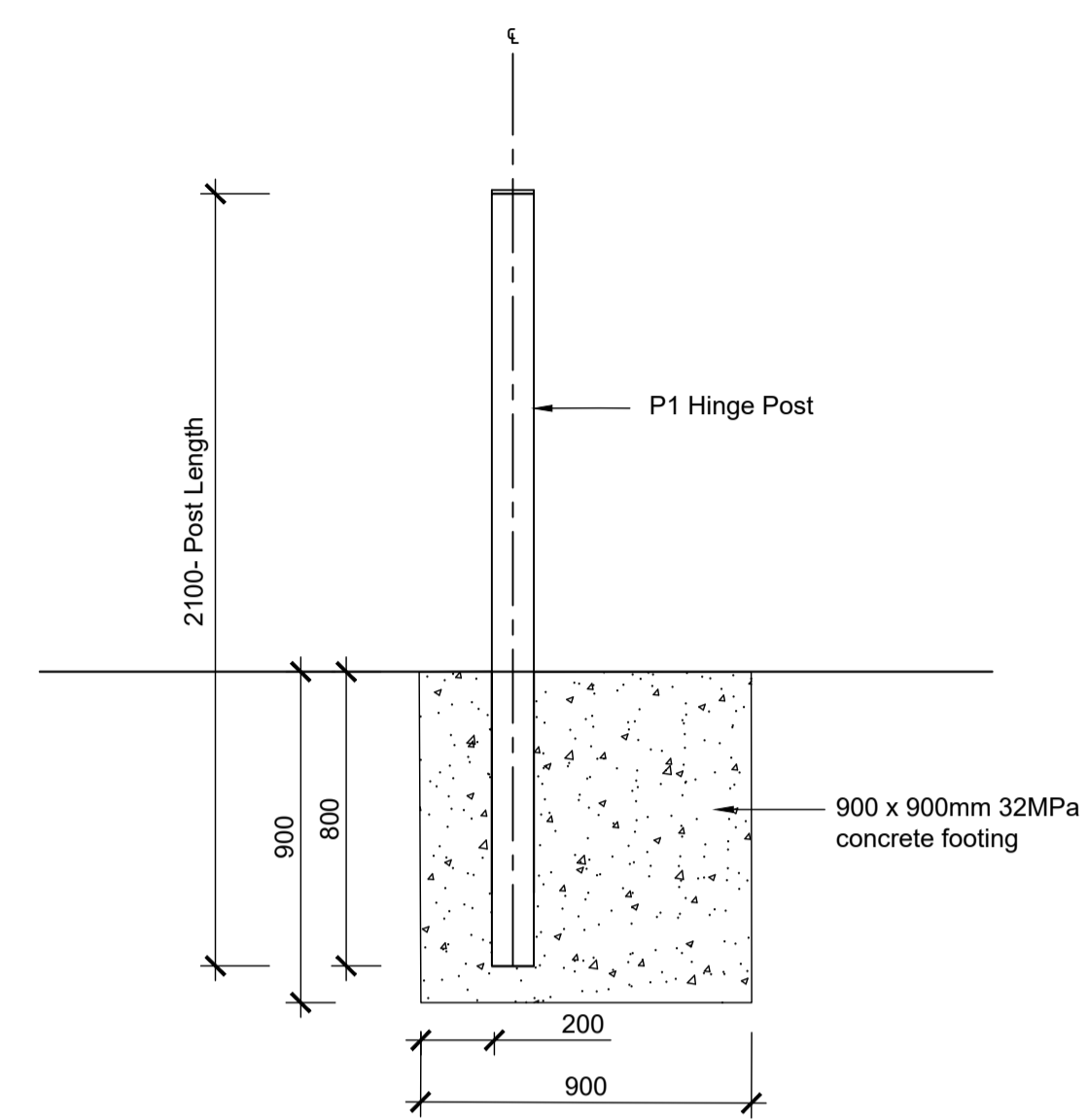
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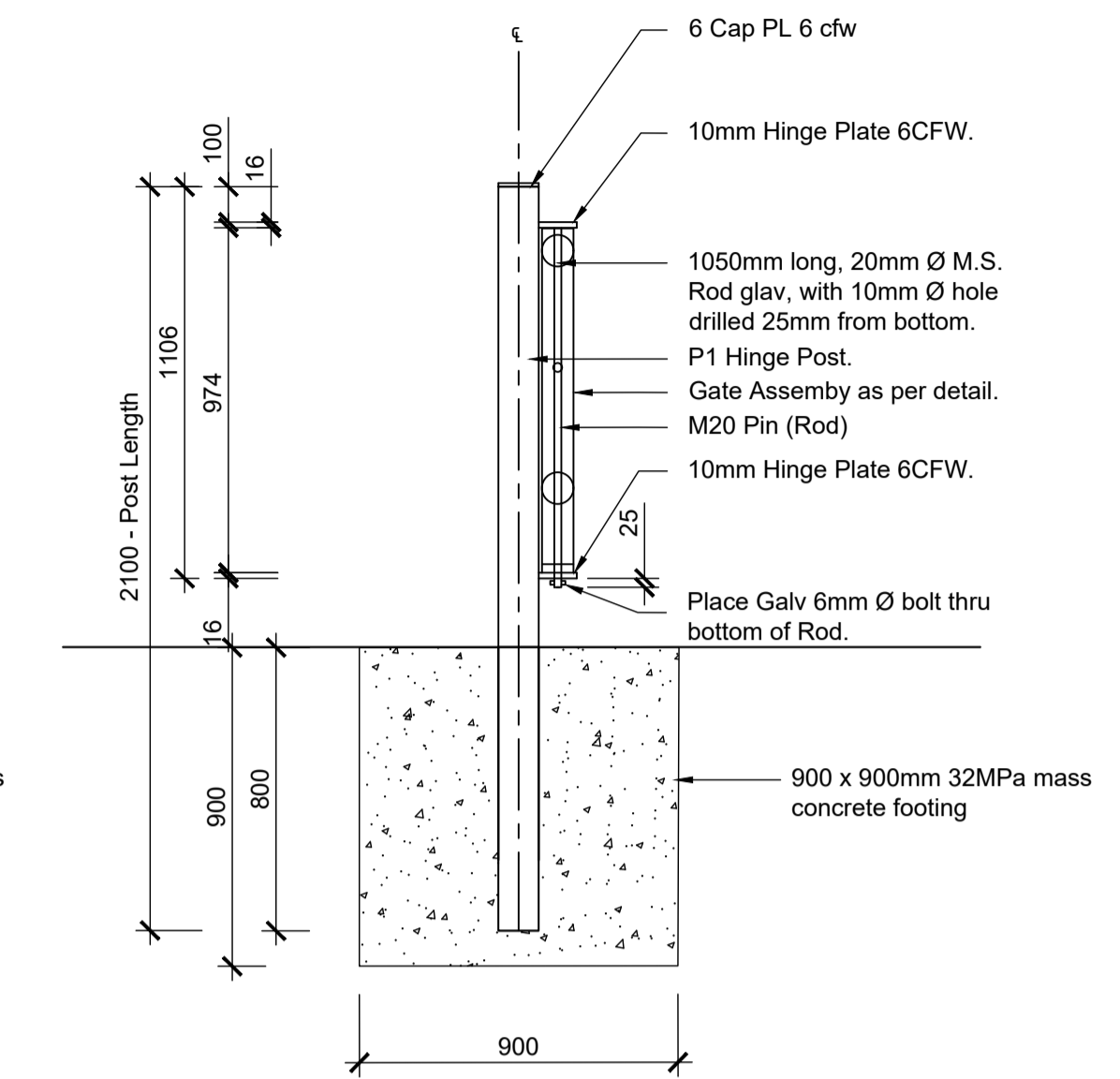
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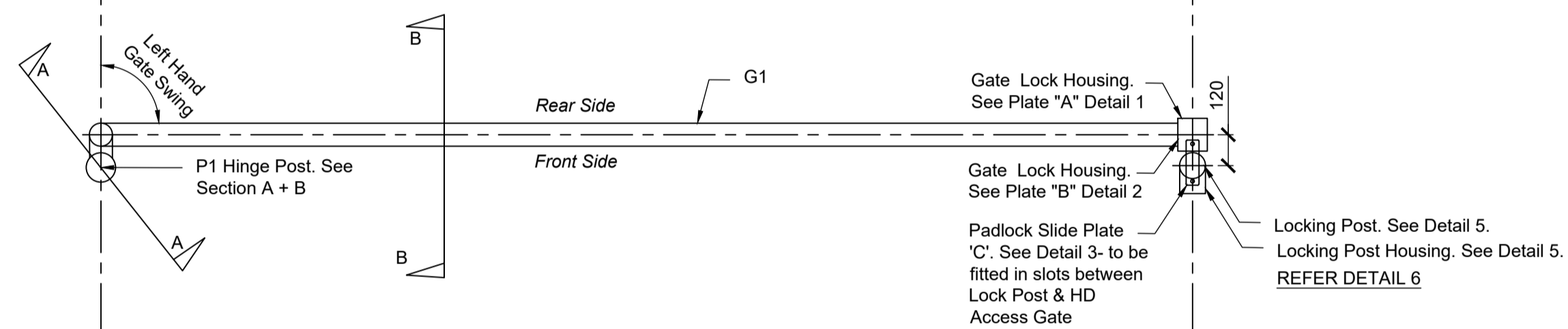
HEAVY DUTY GATE ASSEMBLY - FRONT VIEW
Scale 1:20@A1



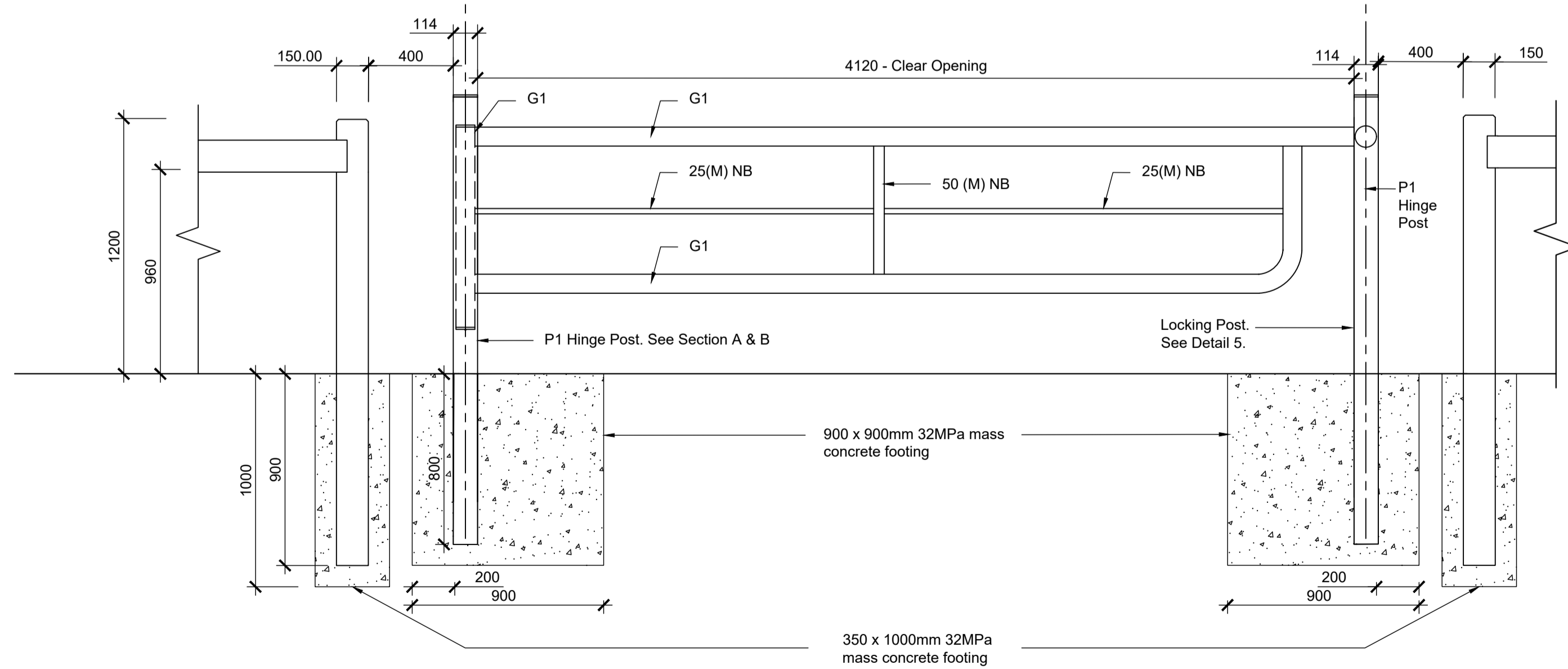
A HEAVY DUTY GATE ASSEMBLY - SECTION
Scale 1:20@A1



B HEAVY DUTY GATE ASSEMBLY - SECTION
Scale 1:20@A1



HEAVY DUTY GATE ASSEMBLY - PLAN VIEW
Scale 1:20@A1



1 HEAVY DUTY GATE ASSEMBLY - ELEVATION
Scale 1:20@A1

- Notes:
- Member Schedule

| | |
|----|----------------|
| G1 | 89Ø x 5.0 CHS |
| P1 | 114Ø x 5.4 CHS |
 - Heavy duty style - no farm gates.
 - Maximum 400mm gap between gate posts and adjacent fence post.
 - Gate must open into the conservation area.
 - No site welding is permitted.
 - All welds shall be 6mm CFW and/or full penetration butt welds, UNO.
 - Weld in accordance with AS 1554 Part 1, welding category G.P.UNO.
 - Welding consumable use E48xx/W50x.
 - After welding apply 100% visual inspection to all welds.
 - Remove all burrs & sharp edges.
 - Paint all broken surfaces using cold galvanized paint.
 - All steelwork & fixings shall be galvanised.
 - The Gate must be located on flat ground, and allow a 4.12M cleared width for a FFMVic vehicle to enter safely when the gate is fully open. Prove a 4M clear height above gate for FFMVic vehicle access.
 - A sign can be fixed to the middle bar of the gate at time of installation or afterwards. The sign is to be attached by 2 Tek screws (to the top and bottom of the sign) with penny washers to prevent theft.

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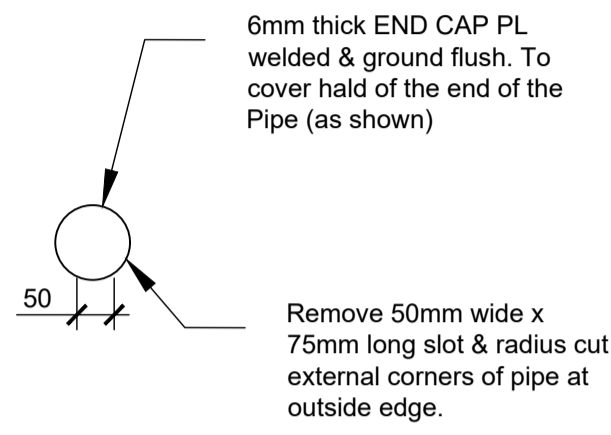
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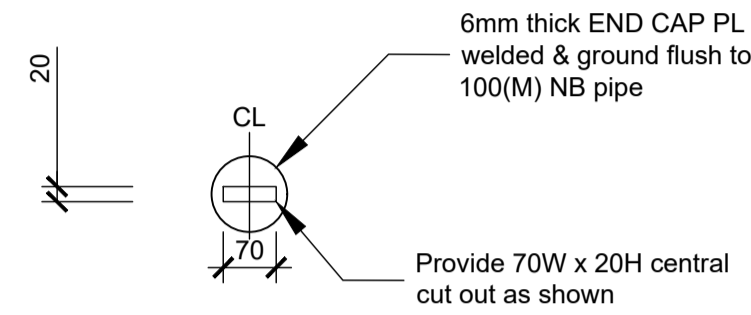
Construction Documentation
Access Gate Details

Drawing Number

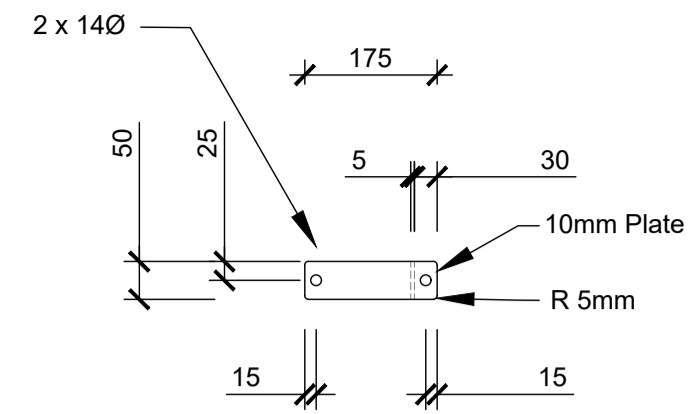
L2.4



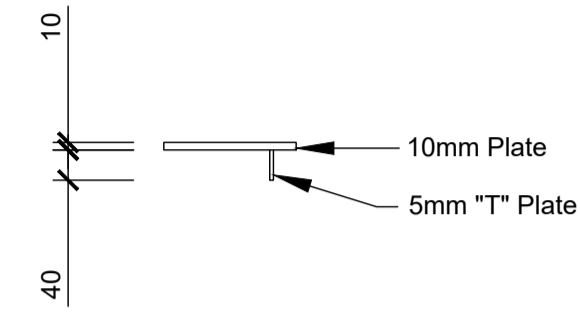
1 DETAIL
Scale 1:10@A1
GATE LOCK HOUSING- PLATE "A" DETAIL
FACING AWAY FROM LOCKING POST



2 DETAIL
Scale 1:10@A1
GATE LOCK HOUSING- PLATE "B" DETAIL
FACING TOWARDS LOCKING POST

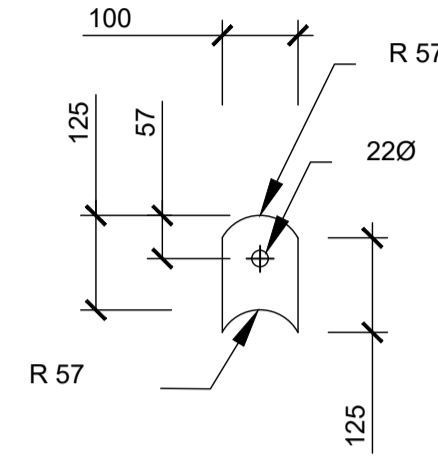


PLAN VIEW

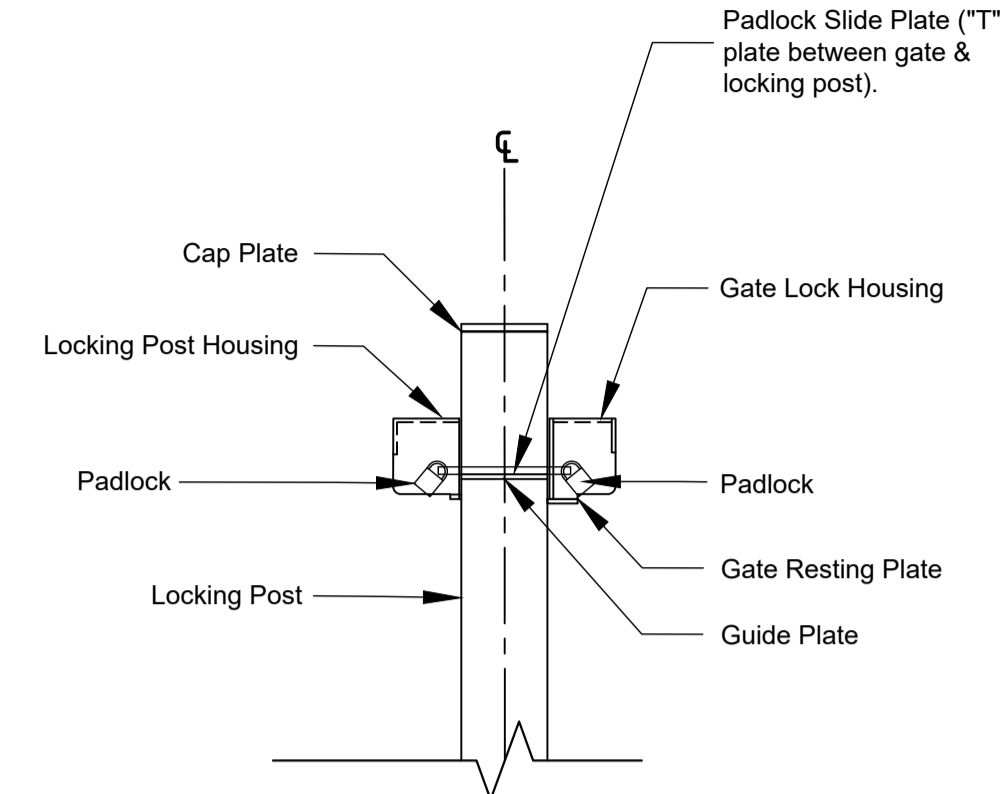


SIDE VIEW

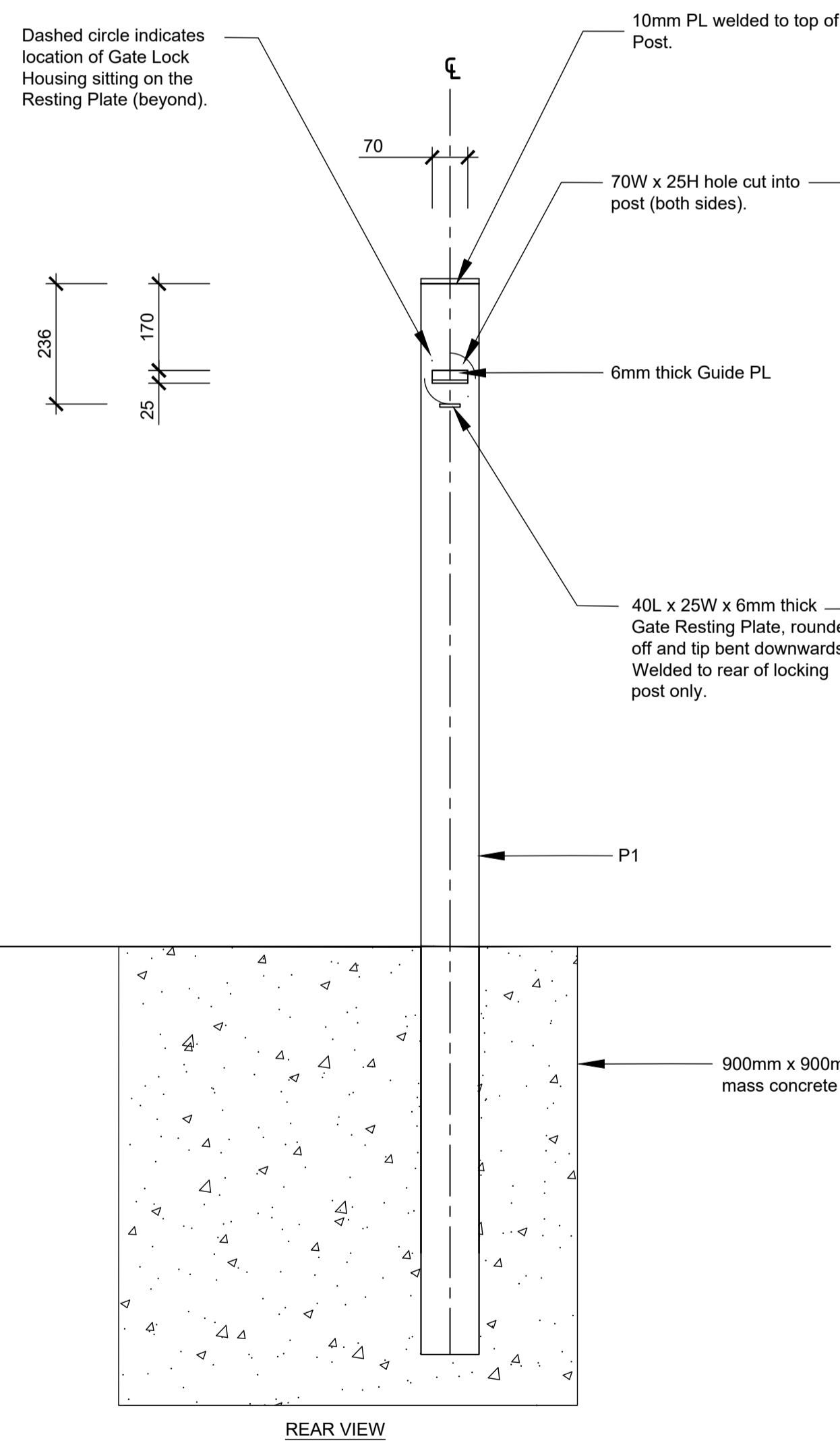
3 DETAIL
Scale 1:10@A1
PADLOCK SLIDE PLATE - PLATE "C" DETAIL



4 DETAIL
Scale 1:10@A1
HINGE PLATE- PLATE "D" DETAIL

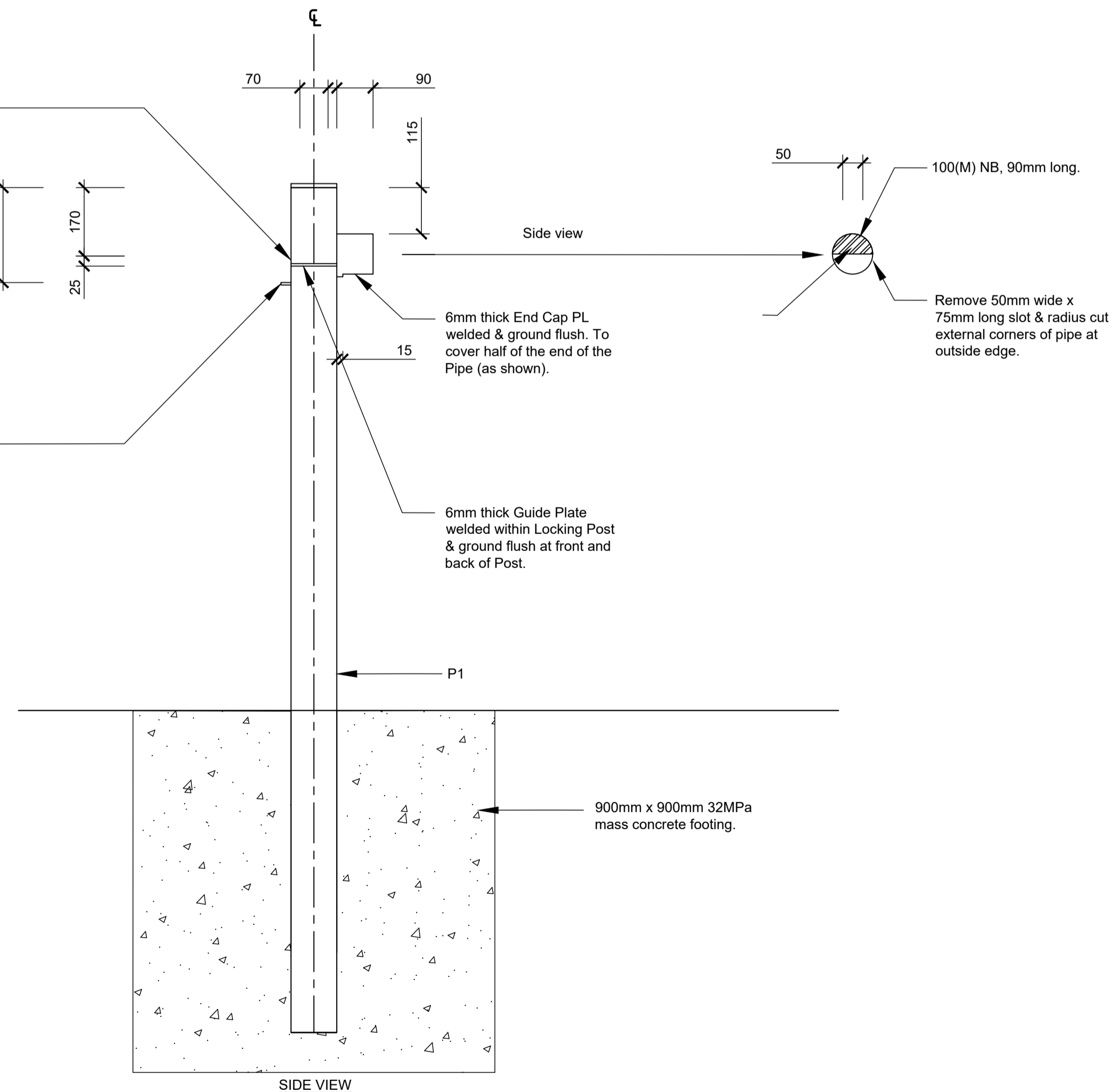


6 DETAIL
Scale 1:10@A1
LOCKING GENERAL ASSEMBLY DETAIL



REAR VIEW

5 DETAIL
Scale 1:10@A1
LOCKING POST DETAIL



SIDE VIEW